

Lampiran 1

Hasil Uji Distribusi Ukuran Partikel Formula A *Batch* I

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	9,87	89,21	1,2378
	40	425	6,05	30,28	58,93	0,2245
	60	250	5,52	24,16	34,77	-0,3916
	80	180	5,19	15,95	18,82	-0,8844
	100	150	5,01	8,64	10,18	-1,2712
	120	125	4,83	4,73	5,45	-1,6027
	Pan	0		5,45		
				99,08		
II	20	850	6,75	9,85	89,15	1,2344
	40	425	6,05	30,21	58,94	0,2247
	60	250	5,52	24,18	34,76	-0,3919
	80	180	5,19	15,92	18,84	-0,8837
	100	150	5,01	8,60	10,24	-1,2678
	120	125	4,83	4,76	5,48	-1,6000
	Pan	0		5,48		
				99,00		
III	20	850	6,75	9,91	89,11	1,2322
	40	425	6,05	30,25	58,86	0,2231
	60	250	5,52	24,14	34,72	-0,3930
	80	180	5,19	15,87	18,85	-0,8833
	100	150	5,01	8,63	10,22	-1,2689
	120	125	4,83	4,80	5,42	-1,6055
	Pan	0		5,42		
				99,02		

Lampiran 2

Hasil Uji Distribusi Ukuran Partikel Formula A *Batch* II

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	10,01	88,93	1,2226
	40	425	6,05	29,92	59,01	0,2261
	60	250	5,52	23,77	35,24	-0,3789
	80	180	5,19	15,93	19,31	-0,8667
	100	150	5,01	8,88	10,43	-1,2572
	120	125	4,83	4,57	5,86	-1,5667
	Pan	0		5,86		
				98,94		
II	20	850	6,75	10,03	89,11	1,2322
	40	425	6,05	30,12	58,99	0,2257
	60	250	5,52	23,82	35,17	-0,3808
	80	180	5,19	16,09	19,08	-0,8750
	100	150	5,01	8,64	10,44	-1,2567
	120	125	4,83	4,63	5,81	-1,5708
	Pan	0		5,81		
				99,14		
III	20	850	6,75	10,56	88,51	1,2010
	40	425	6,05	29,88	58,63	0,2179
	60	250	5,52	23,75	34,88	-0,3886
	80	180	5,19	15,87	19,01	-0,8775
	100	150	5,01	8,63	10,38	-1,2600
	120	125	4,83	4,59	5,79	-1,5725
	Pan	0		5,79		
				99,07		

Lampiran 3

Hasil Uji Distribusi Ukuran Partikel Formula A *Batch* III

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	9,95	89,00	1,2263
	40	425	6,05	31,02	57,98	0,2013
	60	250	5,52	24,23	33,75	-0,4192
	80	180	5,19	16,08	17,67	-0,9281
	100	150	5,01	8,83	8,84	-1,3506
	120	125	4,83	4,34	4,50	-1,6956
	Pan	0		4,50		
				98,95		
II	20	850	6,75	9,91	89,19	1,2367
	40	425	6,05	31,08	58,11	0,2046
	60	250	5,52	24,12	33,99	-0,4127
	80	180	5,19	16,20	17,79	-0,9235
	100	150	5,01	8,78	9,01	-1,3400
	120	125	4,83	4,37	4,64	-1,6810
	Pan	0		4,64		
				99,1		
III	20	850	6,75	9,96	88,86	1,2189
	40	425	6,05	31,05	57,81	0,1970
	60	250	5,52	24,18	33,63	-0,4225
	80	180	5,19	15,97	17,66	-0,9285
	100	150	5,01	8,75	8,91	-1,3462
	120	125	4,83	4,35	4,56	-1,6890
	Pan	0		4,56		
				98,82		

Lampiran 4

Hasil Uji Distribusi Ukuran Partikel Formula B *Batch* I

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	10,75	88,34	1,1921
	40	425	6,05	31,33	57,01	0,1667
	60	250	5,52	23,44	33,57	-0,4242
	80	180	5,19	16,09	17,48	-0,9354
	100	150	5,01	8,67	8,81	-1,3525
	120	125	4,83	4,21	4,60	-1,6850
	Pan	0		4,60		
				99,09		
II	20	850	6,75	10,71	88,35	1,1926
	40	425	6,05	31,28	57,07	0,1767
	60	250	5,52	23,47	33,60	-0,3405
	80	180	5,19	16,11	17,49	-0,9350
	100	150	5,01	8,72	8,77	-1,3550
	120	125	4,83	4,12	4,65	-1,6800
	Pan	0		4,65		
				99,06		
III	20	850	6,75	10,69	88,36	1,1932
	40	425	6,05	31,35	57,01	0,1767
	60	250	5,52	23,51	33,50	-0,4261
	80	180	5,19	16,07	17,43	-0,9373
	100	150	5,01	8,69	8,74	-1,3569
	120	125	4,83	4,18	4,56	-1,6890
	Pan	0		4,56		
				99,05		

Lampiran 5

Hasil Uji Distribusi Ukuran Partikel Formula B *Batch* II

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	10,71	88,25	1,1875
	40	425	6,05	32,44	55,81	0,1462
	60	250	5,52	22,85	32,96	-0,4411
	80	180	5,19	16,29	16,67	-0,9672
	100	150	5,01	9,24	7,43	-1,4443
	120	125	4,83	3,31	4,12	-1,7367
	Pan	0		4,12		
				98,96		
II	20	850	6,75	10,68	88,37	1,1937
	40	425	6,05	32,52	55,85	0,1472
	60	250	5,52	22,88	32,97	-0,4408
	80	180	5,19	16,31	16,66	-0,9676
	100	150	5,01	9,2	7,46	-1,4421
	120	125	4,83	3,27	4,19	-1,7289
	Pan	0		4,19		
				99,05		
III	20	850	6,75	10,75	88,36	1,1932
	40	425	6,05	32,4	55,96	0,1500
	60	250	5,52	22,79	33,17	-0,4353
	80	180	5,19	16,32	16,85	-0,9600
	100	150	5,01	9,18	7,67	-1,4279
	120	125	4,83	3,39	4,28	-1,7189
	Pan	0		4,28		
				99,11		

Lampiran 6

Hasil Uji Distribusi Ukuran Partikel Formula B *Batch* III

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	11,04	88,01	1,1755
	40	425	6,05	32,76	55,25	0,1320
	60	250	5,52	22,4	32,85	-0,4442
	80	180	5,19	15,87	16,98	-0,9550
	100	150	5,01	8,75	8,23	-1,3900
	120	125	4,83	3,19	5,04	-1,6410
	Pan	0		5,04		
				99,05		
II	20	850	6,75	10,78	88,11	1,1805
	40	425	6,05	32,83	55,28	0,1327
	60	250	5,52	22,51	32,77	-0,4464
	80	180	5,19	15,79	16,98	-0,9550
	100	150	5,01	8,82	8,16	-1,3947
	120	125	4,83	3,27	4,89	-1,6510
	Pan	0		4,89		
				98,89		
III	20	850	6,75	10,75	88,27	1,1885
	40	425	6,05	32,69	55,58	0,1403
	60	250	5,52	22,48	33,10	-0,4372
	80	180	5,19	16,03	17,07	-0,9515
	100	150	5,01	8,65	8,42	-1,3773
	120	125	4,83	3,29	5,13	-1,6327
	Pan	0		5,13		
				99,02		

Lampiran 7

Hasil Uji Distribusi Ukuran Partikel Formula C Batch I

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	5,84	93,27	1,4962
	40	425	6,05	41,23	52,04	0,0506
	60	250	5,52	34,57	17,47	-0,9358
	80	180	5,19	9,61	7,86	-1,4147
	100	150	5,01	3,21	4,65	-1,6800
	120	125	4,83	1,19	3,46	-1,8175
	Pan	0		3,46	2.9.6.	2.9.7.
				99,11	2.9.8.	2.9.9.
II	20	850	6,75	5,7	93,42	1,5077
	40	425	6,05	41,31	52,11	0,0513
	60	250	5,52	34,63	17,48	-0,9354
	80	180	5,19	9,53	7,95	-1,4087
	100	150	5,01	3,27	4,68	-1,6770
	120	125	4,83	1,16	3,52	-1,8100
	Pan	0		3,52		
				99,12		
III	20	850	6,75	5,91	93,20	1,4908
	40	425	6,05	41,2	52,00	0,0501
	60	250	5,52	33,73	18,27	-0,9052
	80	180	5,19	9,69	8,58	-1,3669
	100	150	5,01	3,09	5,49	-1,5991
	120	125	4,83	2,11	3,38	-1,8275
	Pan	0		3,38		
				99,11		

Lampiran 8

Hasil Uji Distribusi Ukuran Partikel Formula C Batch II

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	6,09	93,01	1,4764
	40	425	6,05	40,82	52,19	0,0522
	60	250	5,52	35,07	17,12	-0,9496
	80	180	5,19	9,73	7,39	-1,4471
	100	150	5,01	2,75	4,64	-1,6810
	120	125	4,83	1,36	3,28	-1,8414
	Pan	0		3,28		
				99,10		
II	20	850	6,75	6,12	92,99	1,4750
	40	425	6,05	40,91	52,08	0,0510
	60	250	5,52	34,93	17,15	-0,9484
	80	180	5,19	9,82	7,33	-1,4515
	100	150	5,01	2,69	4,64	-1,6810
	120	125	4,83	1,41	3,23	-1,8486
	Pan	0		3,23		
				99,11		
III	20	850	6,75	5,98	93,12	1,4846
	40	425	6,05	40,75	52,37	0,0542
	60	250	5,52	35,11	17,26	-0,9440
	80	180	5,19	9,74	7,52	-1,4380
	100	150	5,01	2,79	4,73	-1,6720
	120	125	4,83	1,42	3,31	-1,8371
	Pan	0		3,31		
				99,10		

Lampiran 9

Hasil Uji Distribusi Ukuran Partikel Formula C *Batch* III

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	5,92	93,14	1,4862
	40	425	6,05	41,09	52,05	0,0507
	60	250	5,52	34,52	17,53	-0,9334
	80	180	5,19	9,61	7,92	-1,4107
	100	150	5,01	2,89	5,03	-1,6420
	120	125	4,83	1,35	3,68	-1,7887
	Pan	0		3,68		
				99,06		
II	20	850	6,75	6,09	92,97	1,4736
	40	425	6,05	40,92	52,05	0,0507
	60	250	5,52	34,47	17,58	-0,9315
	80	180	5,19	9,49	8,09	-1,3993
	100	150	5,01	3,10	4,99	-1,6460
	120	125	4,83	1,41	3,58	-1,8014
	Pan	0		3,58		
				99,06		
III	20	850	6,75	5,88	93,21	1,4915
	40	425	6,05	41,14	52,07	0,0509
	60	250	5,52	34,61	17,46	-0,9362
	80	180	5,19	9,67	7,79	-1,4193
	100	150	5,01	2,82	4,97	-1,6480
	120	125	4,83	1,37	3,60	-1,7987
	Pan	0		3,60		
				99,09		

Lampiran 10

Hasil Uji Distribusi Ukuran Partikel Formula D *Batch* I

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	4,28	94,83	1,6290
	40	425	6,05	30,79	64,04	0,3595
	60	250	5,52	23,17	40,87	-0,2308
	80	180	5,19	18,86	22,01	-0,7717
	100	150	5,01	12,93	9,08	-1,3359
	120	125	4,83	3,96	5,12	-1,6336
	Pan	0		5,12		
				99,11		
II	20	850	6,75	4,24	94,86	1,6318
	40	425	6,05	30,73	64,13	0,3619
	60	250	5,52	23,1	41,03	-0,2267
	80	180	5,19	18,81	22,22	-0,7647
	100	150	5,01	12,88	9,34	-1,3200
	120	125	4,83	4,15	5,19	-1,6270
	Pan	0		5,19		
				99,10		
III	20	850	6,75	4,32	94,79	1,6250
	40	425	6,05	30,69	64,10	0,3611
	60	250	5,52	23,27	40,83	-0,2318
	80	180	5,19	18,84	21,99	-0,7724
	100	150	5,01	12,86	9,13	-1,3329
	120	125	4,83	3,99	5,14	-1,6318
	Pan	0		5,14		
				99,11		

Lampiran 11

Hasil Uji Distribusi Ukuran Partikel Formula D Batch II

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	4,21	94,90	1,6355
	40	425	6,05	30,65	64,25	0,3651
	60	250	5,52	24,18	40,07	-0,2515
	80	180	5,19	18,34	21,73	-0,7814
	100	150	5,01	11,72	10,01	-1,2811
	120	125	4,83	4,80	5,21	-1,6250
	Pan	0		5,21		
				99,11		
II	20	850	6,75	4,17	94,93	1,6398
	40	425	6,05	30,62	64,31	0,3668
	60	250	5,52	24,27	40,04	-0,2523
	80	180	5,19	18,3	21,74	-0,7810
	100	150	5,01	11,63	10,11	-1,2753
	120	125	4,83	4,85	5,26	-1,6200
	Pan	0		5,26		
				99,10		
III	20	850	6,75	4,15	94,95	1,6400
	40	425	6,05	30,78	64,17	0,3630
	60	250	5,52	24,14	40,03	-0,2526
	80	180	5,19	18,43	21,6	-0,7859
	100	150	5,01	11,68	9,92	-1,2861
	120	125	4,83	4,76	5,16	-1,6300
	Pan	0		5,16		
				99,10		

Lampiran 12

Hasil Uji Distribusi Ukuran Partikel Formula D *Batch* III

Replikasi	No. Mesh	Diameter (d μm)	$\ln d$ (μm)	Berat granulat yang tertahan (W gram)	% Kumulatif bawah granulat	Nilai Z
I	20	850	6,75	4,19	94,90	1,6355
	40	425	6,05	31,16	63,74	0,3516
	60	250	5,52	23,96	39,78	-0,2590
	80	180	5,19	18,54	21,24	-0,7983
	100	150	5,01	11,77	9,47	-1,3124
	120	125	4,83	4,35	5,12	-1,6336
	Pan	0		5,12		
				99,09		
II	20	850	6,75	4,13	94,98	1,6422
	40	425	6,05	31,21	63,77	0,3524
	60	250	5,52	24,07	39,70	-0,2611
	80	180	5,19	18,62	21,08	-0,6038
	100	150	5,01	11,52	9,56	-1,3071
	120	125	4,83	4,4	5,16	-1,6300
	Pan	0		5,16		
				99,11		
III	20	850	6,75	4,23	94,87	1,6327
	40	425	6,05	31,19	63,68	0,3500
	60	250	5,52	23,87	39,81	-0,2582
	80	180	5,19	18,48	21,33	-0,7952
	100	150	5,01	11,6	9,73	-1,2971
	120	125	4,83	4,52	5,21	-1,6250
	Pan	0		5,21		
				99,1		

Lampiran 13

4.8. Perhitungan ANAVA Kekerasan Tablet

4.9. Ulangan	4.10. Perlakuan				4.11. Jumlah
	4.12. A	4.13. B	4.14. C	4.15. D	
4.16. 1	6,34	6,85	8,02	5,57	
4.17. 2	6,29	6,84	8,22	5,52	
4.18. 3	6,37	7,02	8,15	5,81	
4.19. n	3	3	3	3	12
4.20. Rata-rata	6,333	6,903	8,130	5,633	-
4.21. Ji	19	20,71	24,39	16,9	81
4.22. Ji ²	361,00	428,90	594,87	285,61	1670,39

4.23.

4.24. Perhitungan JK:

4.25. $k = 4$

4.26. $n = 3$

4.27. $N = 12$

4.28. $(\sum Y_i^2) = 556,8878$

4.29. $J = \sum J_i = 81$

4.30. $JK \text{ Total} = \sum Y_{ij}^2 - \frac{J^2}{N} = 10,1378$

4.31. $JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 10,0454$

4.32. $JK.Ey = \text{Total} - Py = 0,0924$

4.33. Tabel Anava

SV	db	JK	RJK	F hit.	F (0.05)	F (0.01)
Py	4.34. 3	10,0454	3,3485	289,911	4,07	7,59
Ey	4.35. 8	0,0924	0,0115			
TOTAL	4.36. 11	10,1378	-	-	-	-

4.37.

$$4.38. db (TOTAL) = kn - 1 \quad RJK = JK / db$$

$$4.39. db (Py) = (k - 1) \quad F \text{ hitung} = RJK (Py) / RJK (Ey)$$

$$4.40. db (Ey) = db (TOTAL - Py)$$

4.41.

4.42. Kriteria pengujian:

4.43. Bila F hitung > F (0,05) maka berbeda signifikan

4.44.

4.45. Pengujian Hipotesa:

a. $H : \pi = 0$

4.46. Yang berarti tidak ada perbedaan kekerasan yang signifikan sebagai akibat perbedaan perlakuan.

b. Kesimpulan:

4.47. Karena F hitung > F (0,05) maka H ditolak.

4.48. Jadi perlakuan-perlakuan mengakibatkan perbedaan kekerasan yang signifikan.

4.49. Uji HSD / TUCKEY

4.50. Perlakuan	4.51. Mean	4.52. A	4.53. B	4.54. C	4.55. D
		6,333	6,333	6,333	6,333
4.56. A	6,333	0	0,570 *	1,797 *	0,700 *
4.57. B	6,903		0	1,227 *	1,270 *
4.58. C	8,130			0	2,497 *
4.59. D	5,633				0

4.60.

4.61. $RJK = 0,012$ $q(5\%/2; p; db) =$

4,53

4.62. $n = 3$ $HSD (5\%) = q \sqrt{\frac{RJK}{n}} = 0,281$

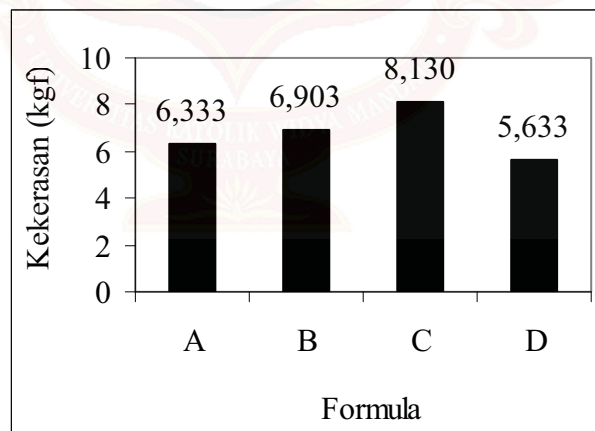
4.63. $db = 8$

4.64. Keterangan:

4.65. * : perbedaannya signifikan, karena selisihnya $> HSD (5\%)$

4.66. TS : perbedaannya tidak signifikan, karena selisihnya $< HSD (5\%)$

4.67.



4.68.

4.69.

Lampiran 14

4.70. Perhitungan ANAVA Kerapuhan Tablet

4.71. Ulangan	4.72. Perlakuan				4.73. Jumlah
	4.74. A	4.75. B	4.76. C	4.77. D	
4.78. 1	0,35666667	0,32	0,29333333	0,28333333	
4.79. 2	0,34666667	0,31333333	0,29	0,31	
4.80. 3	0,34333333	0,31666667	0,27666667	0,31333333	
4.81. n	3	3	3	3	12
4.82. Rata-rata	0,349	0,317	0,287	0,302	-
4.83. Ji	1,04666667	0,95	0,86	0,90666666	3,76333333
4.84. Ji ²	1,10	0,90	0,74	0,82	3,56

4.85.

4.86. Perhitungan JK:

4.87. $k = 4$

4.88. $n = 3$

4.89. $N = 12$

4.90. $(\sum Y_i^2) = 1,187366666$

4.91. $J = \sum J_i = 3,763333333$

4.92. $JK \text{ Total} = \sum Y_{ij}^2 - \frac{J^2}{N} = 0,0071$

4.93. $JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 0,0063$

4.94. $JK.Ey = \text{Total} - Py = 0,0008$

4.95. Tabel Anava

SV	db	JK	RJK	F hit.	F (0.05)	F (0.01)
Py	3	0,0063	0,0021	20,712	4,07	7,59
Ey	8	0,0008	0,0001			
TOTAL	11	0,0071	-	-	-	-

4.96.

$$4.97. db (TOTAL) = kn - 1 \quad RJK = JK / db$$

$$4.98. db (Py) = (k - 1) \quad F \text{ hitung} = RJK (Py) / RJK (Ey)$$

$$4.99. db (Ey) = db (TOTAL - Py)$$

4.100.

4.101. Kriteria pengujian:

4.102. Bila $F \text{ hitung} > F (0,05)$ maka berbeda signifikan

4.103.

4.104. Pengujian Hipotesa:

a. $H : \pi_i = 0$

4.105. Yang berarti tidak ada perbedaan kerapuhan yang signifikan sebagai akibat perbedaan perlakuan.

b. Kesimpulan:

4.106. Karena $F \text{ hitung} > F (0,05)$ maka H ditolak.

4.107. Jadi perlakuan-perlakuan mengakibatkan perbedaan kerapuhan yang signifikan.

4.108. Uji HSD / TUCKEY

4.109. Perlakuan	4.110. Mean	4.111. A	4.112. B	4.113. C	4.114. D
		0,349	0,349	0,349	0,349
4.115. A	0,349	0	0,032 *	0,062 *	0,047 *
4.116. B	0,317		0	0,030 *	0,014 ts
4.117. C	0,287			0	0,016 ts
4.118. D	0,302				0

4.119.

4.120. $RJK = 0,000$ $q(5\%/2; p; db) =$

4,53

4.121. $n = 3$ $HSD (5\%) = q \sqrt{\frac{RJK}{n}} = 0,026$

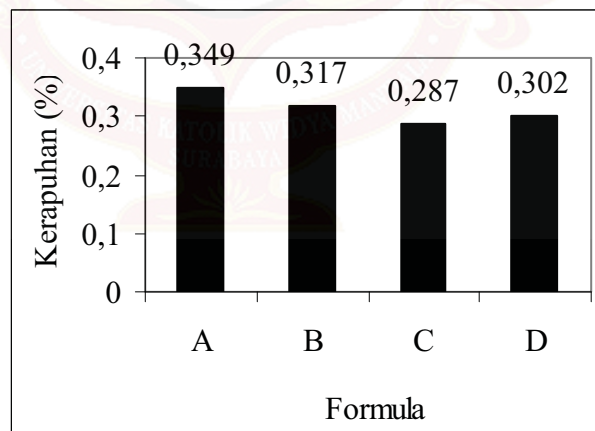
4.122. $db = 8$

4.123. Keterangan:

4.124. * : perbedaannya signifikan, karena selisihnya $> HSD (5\%)$

4.125. TS : perbedaannya tidak signifikan, karena selisihnya $< HSD (5\%)$

4.126.



4.127.

4.128.

Lampiran 15

4.129. Perhitungan ANAVA Waktu Hancur Tablet

4.130. Ulangan	4.131. Perlakuan				4.132. Jumlah
	4.133. A	4.134. B	4.135. C	4.136. D	
4.137. 1	5,51	4,62667	3,703333	2,83333	
4.138. 2	5,433333	4,61667	3,706667	2,81	
4.139. 3	5,586667	4,62333	3,653333	2,81667	
4.140. n	3	3	3	3	12
4.141. Rata-rata	5,510	4,622	3,688	2,820	-
4.142. Ji	16,53	13,8667	11,06333	8,46	49,92
4.143. Ji ²	273,24	192,28	122,40	71,57	659,49

4.144.

4.145. Perhitungan JK:

$$4.146. k = 4$$

$$4.147. n = 3$$

$$4.148. N = 12$$

$$4.149. (\sum Y_i^2) = 219,8453$$

$$4.150. J = \sum J_i = 49,92$$

$$4.151. JK \text{ Total} = \sum Y_{ij}^2 - \frac{J^2}{N} = 12,1781$$

$$4.152. JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 12,1642$$

$$4.153. JK.Ey = \text{Total} - Py = 0,0139$$

4.154. **Tabel Anava**

SV	db	JK	RJK	F hit.	F (0.05)	F (0.01)
Py	3	12,1642	4,0547	2336,778	4,07	7,59
Ey	8	0,0139	0,0017			
TOTAL	11	12,1781	-	-	-	-

4.155.

$$4.156. \text{ db (TOTAL)} = \text{kn} - 1 \quad \text{RJK} = \text{JK} / \text{db}$$

$$4.157. \text{ db (Py)} = (k - 1) \quad \text{F hitung} = \text{RJK (Py)} / \text{RJK (Ey)}$$

$$4.158. \text{ db (Ey)} = \text{db (TOTAL} - \text{Py)}$$

4.159.

4.160. Kriteria pengujian:

4.161. Bila F hitung > F (0,05) maka berbeda signifikan

4.162.

4.163. Pengujian Hipotesa:

a. $H : \pi_i = 0$

4.164. Yang berarti tidak ada perbedaan waktu hancur yang signifikan sebagai akibat perbedaan perlakuan.

b. Kesimpulan:

4.165. Karena F hitung > F (0,05) maka H ditolak.

4.166. Jadi perlakuan-perlakuan mengakibatkan perbedaan waktu hancur yang signifikan.

4.167.

4.168. Uji HSD / TUCKEY

4.169. Perlakuan	4.170. Mean	4.171. A	4.172. B	4.173. C	4.174. D
		5,510	5,510	5,510	5,510
4.175. A	5,510	0	0,888 *	1,822 *	2,690 *
4.176. B	4,622		0	0,934 *	1,802 *
4.177. C	3,688			0	0,868 *
4.178. D	2,820				0

4.179.

4.180. $RJK = 0,002$ $q(5\%/2; p; db) =$

4,53

4.181. $n = 3$ $HSD (5\%) = q \sqrt{\frac{RJK}{n}} = 0,109$

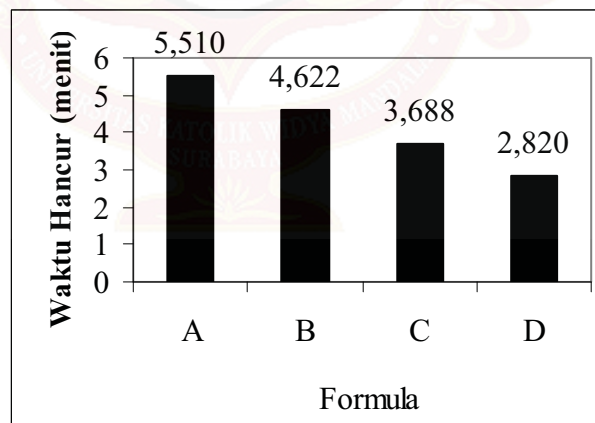
4.182. $db = 8$

4.183. Keterangan:

4.184. * : perbedaannya signifikan, karena selisihnya $> HSD (5\%)$

4.185. TS : perbedaannya tidak signifikan, karena selisihnya $< HSD (5\%)$

4.186.



4.187.

4.188.

Lampiran 16

4.189. Perhitungan ANAVA Disolusi Tablet

4.190. Ulangan	4.191. Perlakuan				4.192. Jumlah
	4.193. A	4.194. B	4.195. C	4.196. D	
4.197. 1	95,09	96,36	97,74	99,07	
4.198. 2	95,21	96,42	97,8	99,26	
4.199. 3	94,96	96,42	97,67	99,07	
4.200. n	3	3	3	3	12
4.201. Rata-rata	95,087	96,400	97,737	99,133	-
4.202. Ji	285,26	289,2	293,21	297,4	1165,07
4.203. Ji ²	81373,27	83636,64	85972,10	88446,76	339428,77

4.204.

4.205. Perhitungan JK:

$$4.206. k = 4$$

$$4.207. n = 3$$

$$4.208. N = 12$$

$$4.209. (\sum Y_i^2) = 113142,9901$$

$$4.210. J = \sum J_i = 1165,07$$

$$4.211. JK \text{ Total} = \sum Y_{ij}^2 - \frac{J^2}{N} = 27,3147$$

$$4.212. JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 27,2485$$

$$4.213. JK.Ey = \text{Total} - Py = 0,0662$$

4.214. **Tabel Anava**

SV	db	JK	RJK	F hit.	F (0.05)	F (0.01)
Py	3	27,2485	9,0828	1097,623	4,07	7,59
Ey	8	0,0662	0,0083			
TOTAL	11	27,3147	-	-	-	-

4.215.

$$4.216. \text{ db (TOTAL)} = \text{kn} - 1 \quad \text{RJK} = \text{JK} / \text{db}$$

$$4.217. \text{ db (Py)} = (k - 1) \quad \text{F hitung} = \text{RJK (Py)} / \text{RJK (Ey)}$$

$$4.218. \text{ db (Ey)} = \text{db (TOTAL} - \text{Py)}$$

4.219.

4.220. Kriteria pengujian:

4.221. Bila F hitung > F (0,05) maka berbeda signifikan

4.222.

4.223. Pengujian Hipotesa:a. $H : \pi = 0$

4.224. Yang berarti tidak ada perbedaan disolusi obat yang signifikan sebagai akibat perbedaan perlakuan.

b. Kesimpulan:

4.225. Karena F hitung > F (0,05) maka H ditolak.

4.226. Jadi perlakuan-perlakuan mengakibatkan perbedaan disolusi obat yang signifikan.

4.227. Uji HSD / TUCKEY

4.228. Perlakuan	4.229. Mean	4.230. A	4.231. B	4.232. C	4.233. D
		95,087	95,087	95,087	95,087
4.234. A	95,087	0	1,313 *	2,650 *	4,047 *
4.235. B	96,400		0	1,337 *	2,733 *
4.236. C	97,737			0	1,397 *
4.237. D	99,133				0

4.238.

$$4.239. RJK = 0,008 \quad q_{(5\%/2; p; db)} =$$

4,53

$$4.240. n = 3 \quad HSD (5\%) = q \sqrt{\frac{RJK}{n}} = 0,238$$

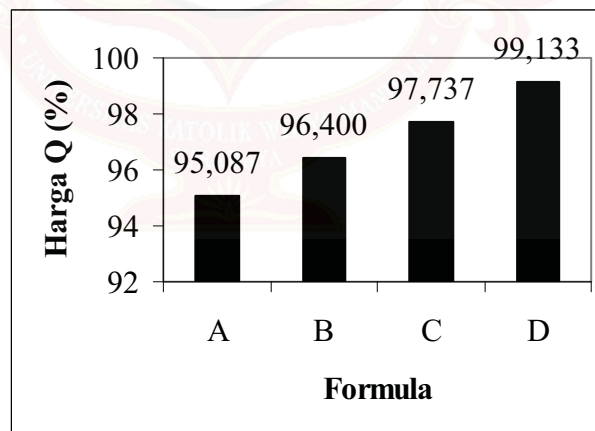
$$4.241. db = 8$$

4.242. Keterangan:

4.243. * : perbedaannya signifikan, karena selisihnya > HSD (5%)

4.244. TS : perbedaannya tidak signifikan, karena selisihnya < HSD (5%)

4.245.



4.246.

4.247.

Surat Keterangan Identifikasi Delima

DINAS KESEHATAN PROPINSI JAWA TIMUR
BALAI MATERIA MEDICA
Jalan Lahor No.87 Telp. (0341) 593396 Batu (65313)
KOTA BATU

Nomor : 074 / 77 / 111.14 / IV / 2007
Sifat : Biasa
Perihal : **Determinasi Tanaman Kulit Buah Delima**

Memenuhi permohonan saudara
Nama : Anastasia Parera
N I M : 2443003165
Fakultas : Fakultas Farmasi Universitas Widya Mandala

Perihal determinasi tanaman Kulit Buah Delima
Divisi : Spermatophyta
Sub divisi : Angiospermae
Kelas : Dicotyledonae
Bangsa : Myrtales
Suku : Punicaceae
Marga : Punica
Jenis : *Punica granatum*

Demikian determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 24 April 2007
An. Kepala Balai Materia Medica Batu
Seksi Penyuluhan Tanaman Obat



Unik Purwaningtyas, SKM
Nip. 440 189 603

Sertifikat Analisa Aerosil

WACKER

Inspection certificate EN 10204 - 3.1

Liefer Datum / Date of delivery
18.10.2006
Bisshalt Nr. / Recursion No.
P111111/VHL06
Auftrags Nr. / Order No.
576156 / 000001 / 02.08.2006

Lieferdatum / Delivery date
23.06.2009
Bisshalt Datum / Date of inspection
02.08.2006
Kundennummer / Customer No.
285125 / Fax: 65426617

Wacker Chemicals South Asia
Pvt. Ltd.
Plot 1, Phase 1 Industrial Area
SE-14, Sector 14, Gurgaon
Haryana, India

Inspection date of issue: 18.10.2006

HDK N20 P/FARMA
10KG BAG WITH VALVE

Technische Daten Technical data	Prüfmethode/Prüfbedingung Test method/Inspection condition	Einheit Unit	Wert Measured value	Untere Grenze Lower limit	Obere Grenze Upper limit
MATERIAL: 68040976 / Lot-No.: VA70582 / NET: 960.000 KG / BEST USE BEFORE END DATE: 10.2009					
Surface pH DIN 9272/6132	PV09001	meq/l	209	170	230
pH value in aqueous EN ISO 7879	PV09005	meq/l	4.1	3.8	4.3
Sieve residue <40 µm EN ISO 787-18	PV09004	%	0.003	0.000	0.010
Content heavy metals	QSCA023	ppm	< 25		25
Loss on ignition USP	QSCA023	%	0.5	0.0	2.0
Content silicon dioxide (nsp)	QSCA023	%	100.1	99.9	100.3
Content arsenic (As)	QSCA023	ppm	< 5		5
Content chlorine (Cl)	QSCA023	ppm	< 250		250
Identification per: to ISO 11	QSCA023	negative			
Typical physical properties					
Tap density EN ISO 787-11	ca 40 g/l				
Loss on drying EN ISO 787-2	< 0.3 %				



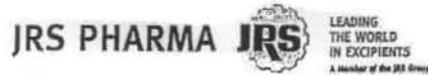
This certificate was issued by machine and is thus valid without a signature

Dieser Ausweis enthält die Daten nach der Überprüfung zu eigenen Qualitätsprüfungen des Eingang des Ware, insbesondere hinsichtlich eventueller Effizienz bei Transport oder Zwischenlagerung, die außerhalb unserer Kontrolle liegen. Im übrigen gelten unsere Allgemeinen Verkaufsbedingungen.

This data does not absolve the purchaser from checking the quality of all supplies immediately on receipt, particularly regarding the possible influences of transport and intermediate storage conditions.

Seite 1 von 4

UNIVERSITAS KATOLIK WIDYA MANDALA
SURABAYA

Sertifikat Analisa Vivapur[®] tipe 101

VIVAPUR[®] Type 101,
Microcrystalline Cellulose NF, Ph. Eur., JP
CERTIFICATE OF ANALYSIS

Batch No.: 8610181005
Re-evaluation date: January 2012
Manufacturing date: January 2008
Manufacturing Site: Weissenborn, Germany

Description	
Appearance	White or almost white fine or granular powder:
Solubility	Practically insoluble in water, acetone, anhydrous ethanol and toluene, dilute acids and sodium hydroxide solution (50 g / L)

Standards	Specification	Batch result	Reference
Bulk density	0.26 - 0.31 g / mL	0.29 g / mL	NF, JP
Particle size	max. 1 %	< 1 %	T226F (MCW)
(retained on air jet sieve)	> 250 µm (80 mesh)	10 %	
	> 75 µm (200 mesh)	58 %	
	> 32 µm (469 mesh)	22 µm	T220F (MCW)
Particle size distribution (Laser diffraction)	d10:	70 µm	
	d50:	140 µm	
	d90:		

Pharmacopel test items	Specification	Batch result	Reference
Zinc chloride test (Ident. A (1))	passes	passes	Ph. Eur., NF, JP
Suspension test (Ident. 2))	passes	passes*	JP
Degree of polymerisation (Ident. B (3))	210 - 270	244	Ph. Eur., NF, JP
Solubility (Copper tetrammine solution)	passes	passes	Ph. Eur.
pH	5.0 - 7.0	6.3	Ph. Eur., USP, JP
Conductivity	max. 50 µS / cm	23 µS / cm	Ph. Eur., NF, JP
Ether-soluble substances	max. 0.05 %	0.01 %	Ph. Eur., NF, JP
Water-soluble substances	max. 0.24 %	0.12 %	Ph. Eur., NF, JP
Loss on drying	max. 7.0 %	3.1 %	Ph. Eur., USP, JP
Sulphated ash / residue on ignition	max. 0.05 %	0.02 %	Ph. Eur., USP, JP
Heavy metals	max. 10 ppm	< 10 ppm*	T252F (MCW)
Total aerobic microbial count	max. 100 CFU / g	< 100 CFU / g*	Ph. Eur., USP, JP
Fungi / molds and yeasts	max. 20 CFU / g	< 20 CFU / g*	Ph. Eur., USP, JP
E. coli, Pseudomonas aeruginosa	absent in 10 g	absent*	Ph. Eur., USP, JP
Staph. aureus, Salmonella spec.	absent in 10 g	absent*	Ph. Eur., USP, JP
Enterobacteriaceae	absent in 1 g	absent*	Ph. Eur.

Additional characteristics**	Test result**	Reference
Degree of brightness**	tested min. 89 % **	T226F (MCW)
Dark particles (Process artifacts)**	tested max. 9 / 600 cm* **	T221F (MCW)
Powder Flow - Angle of repose**	tested max. 44* **	T222F (MCW)

* Results reported are expected results based on periodic testing.

Z56101p12_9

** Results reported are tested result ranges of the batch for information without claiming a certified status.

The batch described by this certificate meets the requirements of Ph. Eur., NF, and JP monographs for "Microcrystalline Cellulose" current edition, it complies with E 460 monograph and all current EU Food Regulations. It is released on the basis of the results ascertained. The raw materials, manufacturing process, and product do not contain any of the solvents listed in Residual Solvents (Ph. Eur. <5.4>, USP <467>).

Storage recommendation: Protect from excessive heat and moisture.

Keep containers closed.

February 04, 2008

Ref.: 7320/2420836

U. Tanneberger
QC MICROCELLULOSE WEISSENBORN

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Fax: (972) 333-2359

E-Mail: info@jrs-pharma.com

Internet: www.jrs-pharma.com

Sertikat Analisa Amilum Pregelatinasi



Pg 2 of 2

Certificate of Analysis

Product Name: STARCH 1500 PARTIALLY PREGELATINIZED MAIZE STARCH
 Product Number: 2001
 Material Description: White Powder
 Lot No: SQ157196
 VBN: INS11215
 Quantity Supplied: 3000 KG
 Ship To: PT Menjangan Sakti ID
 Bill To: PT Menjangan Sakti ID
 Customer Ord NO: CCSG328149
 Customer PO NO: 6C113

Compliance Statement: This Product meets all agreed upon specifications

Test	Method	Specifications		Result	Analyst
		Minimum	Maximum		
PARTICLE SIZE THROUGH 100 MESH, %	QC-TM-1132	90.0	100.0	94.8 %	HK
PARTICLE SIZE THROUGH 270 MESH, %	QC-TM-1132	25.0	100.0	34.6 %	HK
RESIDUE ON IGNITION, %	QC-TM-0211	0.0	0.5	0.1 %	HK
SULPHUR DIOXIDE, %	USP/NF	NMT 0.005		NMT 0.005 %	RC

Other Statements:

Meets all specifications of Pregelatinized Starch, Current NF / Current PhEur.
 Colorcon warrants Starch 1500 partially pregelatinized maize starch to meet current NF and PhEur requirements for Pregelatinized Starch. Colorcon supports this claim through method equivalency studies between the NF methods and PhEur methods and quarterly audit testing for all the PhEur requirements.
 This product is produced using identity preserved, non genetically enhanced maize. The identity preservation process includes: grower certification of the origin of the seeds planted, documentation of storage and handling of grain, and PCR testing of grain delivered to the raw material supplier's plant. The raw material supplier's plant only accepts identity preserved maize.

This product meets ICH Q3C and current USP/NF requirements for Organic Volatile Impurities. OM: Manufacturer guarantees compliance based on process knowledge and audit testing.

This Product was manufactured in a facility that is registered with the United States FDA under the provisions of the Bioterrorism Preparedness and Response Act.

The information contained in this document is proprietary to Colorcon and may not be used or disseminated inappropriately.

Manufactured By: COLORCON
 Manufacturing Site: INDIANAPOLIS, IN, United States
 Approved By: J. NIFER LAM
 Title: REGULATORY MANAGER
 Date Of Manufacture: 26-MAY-2006
 Re-evaluation Date: 25-MAY-2010
 Date: 23-AUG-2006

Sertikat Analisa Amilum Pregelatinasi



Page 1 of 2

Certificate of Analysis

Product Name: STARCH 1500 PARTIALLY PREGELATINIZED MAIZE STARCH
 Product Number: 2001
 Material Description: White Powder
 Lot No: SG157396
 VBN: IN511215
 Quantity Supplied: 3000 KG ✓
 Ship To: PT Menjangan Sakti ID
 Bill To: PT Menjangan Sakti ID
 Customer Ord NO: CCSG328149
 Customer PO NO: 6C113

Compliance Statement: This Product meets all agreed upon specifications

Specifications					
Test	Method	Minimum	Maximum	Result	Analyst
COLD WATER SOLUBLES AVERAGE, %	QC-TM-0969	10.0	20.0	12.7 %	JH
IDENTIFICATION BY EUR	QC-TM-0953	POSITIVE		POSITIVE	AT
IDENTIFICATION USP/NF	QC-TM-0953	POSITIVE		POSITIVE	RC
IRON, %	USP/NF	NMT 0.001		NMT 0.001 %	RC
LOSS ON DRYING AVERAGE, %	QC-TM-1053	0.00	14.00	9.30 %	RC
FOREIGN MATTER	QC-TM-0982	CONFORMS		CONFORMS	AT
MICRO AEROBIC T.C., CFU	QC-TM-M-0066	0	100	<10 CFU	AT
MICRO COAGULASE POS. STAPH	QC-TM-M-1297	ABSENT		ABSENT	AT
MICRO E. COLI	QC-TM-M-1297	ABSENT		ABSENT	AT
MICRO M&Y, CFU	QC-TM-M-0066	0	100	<10 CFU	AT
MICRO P. AERUGINOSA	QC-TM-M-1297	ABSENT		ABSENT	AT
MICRO SALMONELLA	QC-TM-M-1297	ABSENT		ABSENT	AT
OXIDIZING SUBSTANCES	USP/NF	NEGATIVE		NEGATIVE	RC
PH	USP/NF	4.5	7.0	5.8	RC
PROTEIN, %	FCC	< 0.5		GM	N/A
PARTICLE SIZE RETAINED ON 8 MESH, %	QC-TM-1132	0.0	0.0	0.0 %	HH
PARTICLE SIZE RETAINED ON 40 MESH, %	QC-TM-1132	0.0	0.5	0.0 %	HH

This Product was manufactured in a facility that is registered with the United States FDA under the provisions of the Bioterrorism Preparedness and Response Act.

The information contained in this document is proprietary to Colorcon and may not be used or disseminated inappropriately.

Manufactured By: COLORCON
 Manufacturing Site: INDIANAPOLIS, IN United States
 Approved By: JONASER LIA
 Title: _____

Date Of Manufacture: 26-MAY-2006
 Re-evaluation Date: 25-MAY-2010
 Date: 23-AUG-2006

Sertifikat Analisa Talkum

99 19:08

T 33231

MINMETAL GUANGXI

CERTIFICATE OF ANALYSIS

CHINA GUANGXI METALS & MINERALS
IMPORT & EXPORT (GROUP) COMPANYTel: 86 77 586120 Fax: 86 77 586121
31 Yuezhu Road, Nanning, Guangxi, P.R.China
E-mail address: nm-metal@public.nanning.cn

Certificate No.: 4503E990368

Issuing Date: April 1, 2005

Name of Commodity: OSMANTHUS BRAND GUANGXI TALC POWDER
 Quantity / Weight: 3,000 Bags / 200 Metric tons
 Invoice No.: NM990571 Dated April 01, 2005

Representative samples were drawn at random for inspection with results as follows:

SiO ₂ :	60.50%	Water soluble substance:	0.053%
MgO:	31.30%	Water soluble iron:	Negative
Whiteness:	91.2	Acid or alkali:	Neutral
Arsenic:	less than 2 ppm	Bulk density:	0.42g/cm ³
Lead (as pb):	less than 10 ppm	Acid soluble substance:	1.20%
Fungus:	150 pieces/y	Loss on ignition:	1.09%
Fineness:	98.5% passing through 325 mesh		

Packing: In 5-ply Kraft paper bags of about 25 kgs net weight each. Packing sound.

Conclusion: Upon inspection, this lot of commodities conforms to the stipulations of the contract no. 99TP01

Quality Manager:

Issued by:




中国广西五金矿产进出口集团公司
 CHINA GUANGXI METALS & MINERALS
 IMPORT & EXPORT (GROUP) COMPANY

Sertifikat Analisis Magnesium Stearat



QUALITÄTSMANAGEMENT

Chemische Industrie

CERTIFICATE OF ANALYSIS

customer: PT BRATACO

contact person:

FAX:

your order-number: PT80735V1104

our order-number: 4011745

delivered on: 04.08.2006

quantity: 9000

brand: LIGA MAGNESIUM STEARATE MF-2-V VEGETABLE

charge-no. C447175

manufacturing date: 2006-07-19

expiry date: 2008-07-19

product is in accordance with the USP27/NF22/EP2003/Ph.Eur 4rd ed./DAB10/JP 14th ed./FCC 5th ed.

parameter	unit	method	result
retention A	°C	Ph.Eur	59
retention A	metal reaction	USP/NF	passes test
retention B	retention time GC	USP/NF	retentions match
acid value	ml 0.01N HCl	Ph.Eur	<0.5
alkalinity	ml 0.01N NaOH	Ph.Eur	<0.5
heavy metals as Pb	ppm	JP	<20
cad	ppm	BAE 300-B	<1
chromium	ppm	BAE 300-B	<1
nickel	ppm	BAE 300-B	<1
residue	%	Ph.Eur	<0.1
phosphate	%	Ph.Eur	<0.5
acid value of the fatty acid	mg KOH/g	Ph.Eur	204.8
theoretical content of stearic acid	%	USP/NF	65.1
theoretical content of stearic and palmitic acid	%	USP/NF	98.5
total microbial count	cfu/g	USP/NF	<10
total Yeasts	cfu/g	USP/NF	105
total E. coli	cfu/g	USP/NF	absent
total Spores	cfu/g	USP/NF	absent
phenol volatile impurities		USP/NF	meets USP/NF
moisture drying	%	BAE 600	3.9
moisture content	%	BAE 200 o	4.7
acidity acid	%	BAE 400	0.6
residue at 200 mesh	%	BAE 605	0.2
density tapped	g/ml	BAE 611a	0.92
surface area BET	qm/g	USP/NF	10.0
identification		BAE 601	in accordance

Verio: 27.08.04

Results of the above mentioned delivery are based upon careful test according to the guidelines of our quality assurance system. They do not release the customer from entry control. Besides we do not guarantee the properties for concrete applications.

This certificate was issued by EDV and does not bear a signature.



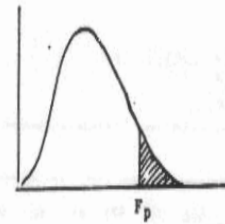
Tabel Z

z	0	1	2	3	4	5	6	7	8	9
.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
.7	.7580	.7611	.7642	.7673	.7703	.7734	.7764	.7794	.7823	.7852
.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9278	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9430	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9515	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9648	.9656	.9664	.9671	.9678	.9686	.9693	.9700	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9762	.9767
2.0	.9772	.9778	.9783	.9788	.9792	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9874	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.0	.9987	.9990	.9993	.9995	.9997	.9998	.9998	.9999	.9999	1.0000

z	0	1	2	3	4	5	6	7	8	9
- 3 .	.0013	.0010	.0007	.0005	.0003	.0002	.0002	.0001	.0001	.0000
- 2 . 9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
- 2 . 8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
- 2 . 7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
- 2 . 6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
- 2 . 5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
- 2 . 4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
- 2 . 3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
- 2 . 2	.0139	.0136	.0132	.0129	.0126	.0122	.0119	.0116	.0113	.0110
- 2 . 1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
- 2 . 0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
- 1 . 9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0238	.0233
- 1 . 8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0300	.0294
- 1 . 7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
- 1 . 6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
- 1 . 5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0570	.0559
- 1 . 4	.0806	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
- 1 . 3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
- 1 . 2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
- 1 . 1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
- 1 . 0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
- . 9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
- . 8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
- . 7	.2420	.2389	.2358	.2327	.2297	.2266	.2236	.2206	.2177	.2148
- . 6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
- . 5	.3065	.3030	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
- . 4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
- . 3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
- . 2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
- . 1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
- . 0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641

Dikutip dari: Gennaro (1970).

DAFTAR D

Nilai Persentil Untuk Distribusi Γ (Bilangan Dalam Badan Daftar Menyatakan F_p , Baris Atas Untuk $p = 0,05$ dan Baris Bawah Untuk $p = 0,01$).

$U_2 = dk$ penyebut	$U_1 = dk$ pembilang																																																
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞																									
1	161	200	216	225	230	234	237	239	241	242	243	244	245	246	248	249	250	251	252	253	253	254	254	254	4052	4999	5403	5625	5764	5859	5928	5981	6022	6056	6082	6106	6142	6169	6208	6234	6258	6286	6302	6323	6334	6352	6361	6366	
2	18,51	19,00	19,16	19,25	19,30	19,33	19,36	19,37	19,38	19,39	19,40	19,41	19,42	19,43	19,44	19,45	19,46	19,47	19,47	19,48	19,49	19,49	19,50	19,50	98,49	99,01	99,17	99,25	99,30	99,33	99,34	99,36	99,38	99,40	99,41	99,42	99,43	99,44	99,45	99,45	99,47	99,48	99,48	99,49	99,49	99,50	99,50	99,50	
3	10,13	9,55	9,28	9,12	9,01	8,94	8,88	8,84	8,81	8,78	8,76	8,74	8,71	8,69	8,66	8,64	8,62	8,60	8,58	8,57	8,56	8,54	8,54	8,53	34,12	30,81	29,46	28,71	28,24	27,91	27,67	27,49	27,34	27,23	27,13	27,05	26,92	26,83	26,69	26,60	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12	26,12
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,93	5,91	5,87	5,84	5,80	5,77	5,74	5,71	5,70	5,68	5,66	5,65	5,64	5,63	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,54	14,45	14,37	14,24	14,15	14,02	13,93	13,83	13,74	13,69	13,61	13,57	13,52	13,48	13,46	13,46
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,78	4,74	4,70	4,68	4,64	4,60	4,56	4,53	4,50	4,46	4,44	4,42	4,40	4,38	4,37	4,36	16,26	13,27	12,06	11,39	10,97	10,67	10,45	10,27	10,15	10,05	9,96	9,89	9,77	9,68	9,55	9,47	9,38	9,29	9,24	9,17	9,13	9,07	9,04	9,02	9,02
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,03	4,00	3,96	3,92	3,87	3,84	3,81	3,77	3,75	3,72	3,71	3,69	3,68	3,67	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99	6,94	6,90	6,88	6,88
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,63	3,60	3,57	3,52	3,49	3,44	3,41	3,38	3,34	3,32	3,29	3,28	3,25	3,24	3,23	12,25	9,55	8,45	7,85	7,46	7,19	7,00	6,84	6,71	6,62	6,54	6,47	6,35	6,27	6,15	6,07	5,98	5,90	5,85	5,78	5,75	5,70	5,67	5,65	5,65
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,34	3,31	3,28	3,23	3,20	3,15	3,12	3,08	3,05	3,03	3,00	2,98	2,96	2,94	2,93	11,26	8,65	7,59	7,01	6,63	6,37	6,19	6,03	5,91	5,82	5,74	5,67	5,56	5,48	5,36	5,28	5,20	5,11	5,06	5,00	4,96	4,91	4,88	4,86	4,86
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,13	3,10	3,07	3,02	2,98	2,93	2,90	2,86	2,82	2,80	2,77	2,76	2,73	2,72	2,71	10,56	8,02	6,99	6,42	6,06	5,80	5,62	5,47	5,35	5,26	5,18	5,11	5,00	4,92	4,80	4,73	4,64	4,56	4,51	4,45	4,41	4,36	4,33	4,31	4,31

DAFTAR D (lanjutan)

Urut = dx	Urut = dx																			
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,97	2,94	2,91	2,86	2,82	2,77	2,74	2,70	2,67	2,64	2,60
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,86	2,82	2,79	2,74	2,70	2,65	2,61	2,57	2,53	2,50	2,46
12	4,75	3,88	3,49	3,26	3,11	3,00	2,92	2,85	2,80	2,76	2,72	2,69	2,64	2,60	2,55	2,51	2,46	2,42	2,40	2,36
13	4,67	3,80	3,41	3,18	3,02	2,92	2,84	2,77	2,72	2,67	2,63	2,60	2,55	2,51	2,46	2,42	2,38	2,34	2,32	2,28
14	4,60	3,74	3,34	3,11	2,96	2,85	2,77	2,70	2,65	2,60	2,56	2,53	2,48	2,44	2,39	2,35	2,31	2,27	2,24	2,19
15	4,54	3,68	3,29	3,06	2,90	2,79	2,70	2,64	2,59	2,54	2,50	2,46	2,42	2,38	2,33	2,29	2,25	2,21	2,18	2,13
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,45	2,42	2,37	2,33	2,28	2,24	2,20	2,16	2,13	2,09
17	4,45	3,59	3,20	2,98	2,81	2,70	2,62	2,56	2,50	2,45	2,41	2,38	2,33	2,29	2,23	2,19	2,15	2,11	2,08	2,04
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,37	2,34	2,29	2,25	2,19	2,15	2,11	2,07	2,04	1,99
19	4,38	3,52	3,13	2,90	2,74	2,63	2,55	2,48	2,43	2,38	2,34	2,31	2,26	2,22	2,15	2,11	2,07	2,02	1,99	1,94
20	4,35	3,49	3,10	2,87	2,71	2,60	2,52	2,45	2,40	2,35	2,31	2,28	2,23	2,18	2,12	2,08	2,04	1,99	1,96	1,91
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,28	2,25	2,20	2,15	2,09	2,05	2,00	1,96	1,93	1,88
22	4,30	3,44	3,05	2,82	2,66	2,55	2,47	2,40	2,35	2,30	2,26	2,23	2,18	2,13	2,07	2,03	1,98	1,93	1,91	1,87
23	4,28	3,42	3,03	2,80	2,64	2,53	2,45	2,38	2,32	2,28	2,24	2,20	2,14	2,10	2,04	2,00	1,96	1,91	1,88	1,84
	7,88	5,66	4,76	4,26	3,94	3,71	3,54	3,41	3,30	3,21	3,14	3,07	2,97	2,89	2,78	2,70	2,62	2,53	2,45	2,37

DAFTAR D (lanjutan)

U ₂ = dk penyebut	U ₁ = dk pembilang																											
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞				
24	4,26	3,40	3,01	2,78	2,62	2,51	2,43	2,36	2,30	2,26	2,22	2,18	2,13	2,09	2,02	1,98	1,94	1,89	1,86	1,82	1,80	1,76	1,74	1,73				
	7,82	5,61	4,72	4,22	3,90	3,67	3,50	3,36	3,25	3,17	3,09	3,03	2,93	2,85	2,74	2,66	2,58	2,49	2,44	2,36	2,33	2,27	2,23	2,21				
25	4,24	3,38	2,99	2,76	2,60	2,49	2,41	2,34	2,28	2,24	2,20	2,16	2,11	2,06	2,00	1,96	1,92	1,87	1,84	1,80	1,77	1,74	1,72	1,71				
	7,77	5,57	4,68	4,18	3,86	3,63	3,46	3,32	3,21	3,13	3,05	2,99	2,89	2,81	2,70	2,62	2,54	2,45	2,40	2,32	2,29	2,23	2,19	2,17				
26	4,22	3,37	2,89	2,74	2,59	2,47	2,39	2,32	2,27	2,22	2,18	2,15	2,10	2,05	1,99	1,95	1,90	1,85	1,82	1,78	1,76	1,72	1,70	1,69				
	7,72	5,53	4,64	4,14	3,82	3,59	3,42	3,29	3,17	3,09	3,02	2,96	2,86	2,77	2,66	2,58	2,50	2,41	2,36	2,28	2,25	2,19	2,15	2,13				
27	4,21	3,35	2,96	2,73	2,57	2,46	2,37	2,30	2,25	2,20	2,16	2,13	2,08	2,03	1,97	1,93	1,88	1,84	1,80	1,76	1,74	1,71	1,68	1,67				
	7,68	5,49	4,60	4,11	3,79	3,56	3,39	3,26	3,14	3,06	2,98	2,93	2,83	2,74	2,63	2,55	2,47	2,38	2,33	2,25	2,21	2,16	2,12	2,10				
28	4,20	3,34	2,95	2,71	2,56	2,44	2,36	2,29	2,24	2,19	2,15	2,12	2,06	2,02	1,96	1,91	1,87	1,81	1,78	1,75	1,72	1,69	1,67	1,65				
	7,64	5,45	4,57	4,07	3,76	3,53	3,36	3,23	3,11	3,03	2,95	2,90	2,80	2,71	2,60	2,52	2,44	2,35	2,30	2,22	2,18	2,13	2,09	2,06				
29	4,18	3,33	2,93	2,70	2,54	2,43	2,35	2,28	2,22	2,18	2,14	2,10	2,05	2,00	1,94	1,90	1,85	1,80	1,77	1,73	1,71	1,68	1,65	1,64				
	7,60	5,52	4,54	4,04	3,73	3,50	3,33	3,20	3,08	3,00	2,92	2,87	2,77	2,68	2,57	2,49	2,41	2,32	2,27	2,19	2,15	2,10	2,06	2,03				
30	4,17	3,32	2,92	2,69	2,53	2,42	2,34	2,27	2,21	2,16	2,12	2,09	2,04	1,99	1,93	1,89	1,84	1,79	1,76	1,72	1,69	1,66	1,64	1,62				
	7,56	5,39	4,51	4,02	3,70	3,47	3,30	3,17	3,06	2,98	2,90	2,84	2,74	2,66	2,55	2,47	2,38	2,29	2,24	2,16	2,13	2,07	2,03	2,01				
32	4,15	3,30	2,90	2,67	2,51	2,40	2,32	2,25	2,19	2,14	2,10	2,07	2,02	1,97	1,91	1,86	1,82	1,76	1,74	1,69	1,67	1,64	1,61	1,59				
	7,50	5,34	4,46	3,97	3,66	3,42	3,25	3,12	3,01	2,94	2,86	2,80	2,70	2,62	2,51	2,42	2,34	2,25	2,20	2,12	2,08	2,02	1,98	1,96				
34	4,13	3,28	2,88	2,65	2,49	2,38	2,30	2,23	2,17	2,12	2,08	2,05	2,00	1,95	1,89	1,84	1,80	1,74	1,71	1,67	1,64	1,61	1,59	1,57				
	7,44	5,23	4,42	3,93	3,61	3,38	3,21	3,08	2,97	2,89	2,82	2,76	2,66	2,58	2,47	2,38	2,30	2,21	2,15	2,08	2,04	1,98	1,94	1,91				
36	4,11	3,26	2,86	2,63	2,48	2,36	2,28	2,21	2,15	2,10	2,06	2,03	1,89	1,93	1,87	1,82	1,78	1,72	1,69	1,65	1,62	1,59	1,56	1,55				
	7,39	5,25	4,38	3,89	3,58	3,35	3,18	3,04	2,94	2,86	2,78	2,72	2,62	2,54	2,43	2,35	2,26	2,17	2,12	2,04	2,00	1,94	1,90	1,87				
38	4,10	3,25	2,85	2,62	2,46	2,35	2,26	2,19	2,14	2,09	2,05	2,02	1,96	1,92	1,85	1,80	1,76	1,71	1,67	1,63	1,60	1,57	1,54	1,53				
	7,35	5,21	4,34	3,86	3,54	3,32	3,15	3,02	2,91	2,82	2,75	2,69	2,59	2,51	2,40	2,32	2,22	2,14	2,08	2,00	1,97	1,90	1,86	1,84				
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,12	2,07	2,04	2,00	1,95	1,90	1,84	1,79	1,74	1,69	1,66	1,61	1,59	1,55	1,53	1,51				
	7,31	5,18	4,31	3,83	3,51	3,29	3,12	2,99	2,88	2,80	2,73	2,66	2,56	2,49	2,37	2,29	2,20	2,11	2,05	1,97	1,94	1,88	1,84	1,81				
42	4,07	3,22	2,83	2,59	2,44	2,32	2,24	2,17	2,11	2,06	2,02	1,99	1,94	1,89	1,82	1,78	1,73	1,68	1,64	1,60	1,57	1,54	1,51	1,49				
	7,27	5,15	4,29	3,80	3,49	3,26	3,10	2,96	2,86	2,77	2,70	2,64	2,54	2,46	2,35	2,26	2,17	2,08	2,02	1,94	1,91	1,85	1,80	1,78				
44	4,06	3,21	2,82	2,58	2,43	2,31	2,23	2,16	2,10	2,05	2,01	1,98	1,92	1,88	1,81	1,76	1,72	1,66	1,63	1,58	1,56	1,52	1,50	1,48				
	7,24	5,12	4,26	3,78	3,46	3,24	3,07	2,94	2,84	2,75	2,68	2,62	2,52	2,44	2,32	2,24	2,15	2,06	2,00	1,92	1,88	1,82	1,78	1,75				
46	4,05	3,20	2,81	2,57	2,42	2,30	2,22	2,14	2,09	2,04	2,00	1,97	1,91	1,87	1,80	1,75	1,71	1,65	1,62	1,57	1,54	1,51	1,48	1,46				
	7,21	5,10	4,24	3,76	3,44	3,22	3,05	2,92	2,82	2,73	2,66	2,60	2,50	2,42	2,30	2,22	2,13	2,04	1,98	1,90	1,86	1,80	1,76	1,72				
48	4,04	3,19	2,80	2,56	2,41	2,30	2,21	2,14	2,08	2,03	1,99	1,96	1,90	1,86	1,79	1,74	1,70	1,64	1,61	1,56	1,53	1,50	1,47	1,45				
	7,19	5,08	4,22	3,74	3,42	3,20	3,04	2,90	2,80	2,71	2,64	2,58	2,48	2,40	2,28	2,20	2,11	2,02	1,96	1,88	1,84	1,78	1,73	1,70				

DAFTAR D (lanjutan)

$U_2 = dk$ penyebut	$U_1 = dk$ pembilang																											
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞				
50	4,03	3,18	2,79	2,56	2,40	2,29	2,20	2,13	2,07	2,02	1,98	1,95	1,90	1,85	1,78	1,74	1,69	1,63	1,60	1,55	1,52	1,48	1,46	1,44				
	7,17	5,06	4,20	3,72	3,41	3,18	3,02	2,88	2,78	2,70	2,62	2,56	2,46	2,39	2,26	2,18	2,10	2,00	1,94	1,86	1,82	1,76	1,71	1,68				
55	4,02	3,17	2,78	2,54	2,38	2,27	2,18	2,11	2,05	2,00	1,97	1,93	1,88	1,83	1,76	1,72	1,67	1,61	1,58	1,52	1,50	1,46	1,43	1,41				
	7,12	5,01	4,16	3,68	3,37	3,15	2,98	2,85	2,75	2,66	2,59	2,53	2,43	2,36	2,23	2,15	2,06	1,96	1,90	1,82	1,78	1,71	1,66	1,64				
60	4,00	3,15	2,76	2,52	2,37	2,25	2,17	2,10	2,04	1,99	1,95	1,92	1,86	1,81	1,75	1,70	1,65	1,59	1,56	1,50	1,48	1,44	1,41	1,39				
	7,08	4,98	4,13	3,65	3,34	3,12	2,95	2,82	2,72	2,63	2,56	2,50	2,40	2,32	2,20	2,12	2,03	1,93	1,87	1,79	1,74	1,68	1,63	1,60				
65	3,99	3,14	2,75	2,51	2,36	2,24	2,15	2,08	2,02	1,98	1,94	1,90	1,85	1,80	1,73	1,68	1,63	1,57	1,54	1,49	1,46	1,42	1,39	1,37				
	7,04	4,95	4,10	3,62	3,31	3,09	2,93	2,79	2,70	2,61	2,54	2,47	2,37	2,30	2,18	2,09	2,00	1,90	1,84	1,76	1,71	1,64	1,60	1,56				
70	3,98	3,13	2,74	2,50	2,35	2,23	2,14	2,07	2,01	1,97	1,93	1,89	1,84	1,79	1,72	1,67	1,62	1,56	1,53	1,47	1,45	1,40	1,37	1,35				
	7,01	4,92	4,08	3,60	3,29	3,07	2,91	2,77	2,67	2,59	2,51	2,45	2,35	2,28	2,15	2,07	1,98	1,88	1,82	1,74	1,69	1,62	1,56	1,53				
80	3,96	3,11	2,72	2,48	2,33	2,21	2,12	2,05	1,99	1,95	1,91	1,88	1,82	1,77	1,70	1,65	1,60	1,54	1,51	1,45	1,42	1,38	1,35	1,32				
	6,96	4,88	4,04	3,56	3,25	3,04	2,87	2,74	2,64	2,55	2,48	2,41	2,32	2,24	2,11	2,03	1,94	1,84	1,78	1,70	1,65	1,57	1,52	1,49				
100	3,94	3,09	2,70	2,46	2,30	2,19	2,10	2,03	1,97	1,92	1,88	1,85	1,79	1,75	1,68	1,63	1,57	1,51	1,48	1,42	1,39	1,34	1,30	1,28				
	6,90	4,82	3,98	3,51	3,20	2,99	2,82	2,69	2,59	2,51	2,43	2,36	2,26	2,19	2,06	1,98	1,89	1,79	1,73	1,64	1,59	1,51	1,46	1,43				
125	3,92	3,07	2,68	2,44	2,29	2,17	2,08	2,01	1,95	1,90	1,86	1,83	1,77	1,72	1,65	1,60	1,55	1,49	1,45	1,39	1,36	1,31	1,27	1,25				
	6,84	4,78	3,94	3,47	3,17	2,95	2,79	2,65	2,56	2,47	2,40	2,33	2,23	2,15	2,03	1,94	1,85	1,75	1,68	1,59	1,54	1,46	1,40	1,37				
150	3,91	3,06	2,67	2,43	2,27	2,16	2,07	2,00	1,94	1,89	1,85	1,82	1,76	1,71	1,64	1,59	1,54	1,47	1,44	1,37	1,34	1,29	1,25	1,22				
	6,81	4,75	3,91	3,44	3,13	2,92	2,76	2,62	2,53	2,44	2,37	2,30	2,20	2,12	2,00	1,91	1,83	1,72	1,66	1,56	1,51	1,43	1,37	1,33				
200	3,89	3,04	2,65	2,41	2,26	2,14	2,05	1,98	1,92	1,87	1,83	1,80	1,74	1,69	1,62	1,57	1,52	1,45	1,42	1,35	1,32	1,26	1,22	1,19				
	6,76	4,71	3,88	3,41	3,11	2,90	2,73	2,60	2,50	2,41	2,34	2,28	1,17	2,09	1,97	1,88	1,79	1,69	1,62	1,53	1,48	1,39	1,33	1,28				
400	3,86	3,02	2,62	2,39	2,23	2,12	2,03	1,96	1,90	1,85	1,81	1,78	1,72	1,67	1,60	1,54	1,49	1,42	1,38	1,32	1,28	1,22	1,16	1,13				
	6,70	4,66	3,83	3,36	3,06	2,85	2,69	2,55	2,16	2,37	2,29	2,23	2,12	2,04	1,92	1,84	1,74	1,64	1,57	1,47	1,42	1,32	1,24	1,19				
1000	3,85	3,00	2,61	2,38	2,22	2,10	2,02	1,95	1,89	1,84	1,80	1,76	1,70	1,65	1,58	1,53	1,47	1,41	1,36	1,30	1,26	1,19	1,13	1,08				
	6,68	4,62	3,80	3,34	3,04	2,82	2,66	2,53	2,43	2,34	2,26	2,20	2,09	2,01	1,89	1,81	1,71	1,61	1,54	1,44	1,38	1,28	1,19	1,11				
∞	3,84	2,99	2,60	2,37	2,21	2,09	2,01	1,94	1,88	1,83	1,79	1,75	1,69	1,64	1,57	1,52	1,46	1,40	1,35	1,28	1,24	1,17	1,11	1,00				
	6,64	4,60	3,78	3,32	3,02	2,80	2,64	2,51	2,41	2,32	2,24	2,18	2,07	1,99	1,87	1,79	1,69	1,59	1,52	1,41	1,36	1,25	1,15	1,00				

Dikutip dari: Sudjana (1985).

Lampiran 25

DAFTAR E

Nilai Rentang Student untuk $\alpha = 0,05$

U	p																			
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	18.0	26.7	32.8	37.2	40.5	43.1	45.4	47.3	49.1	50.6	51.9	53.2	54.3	55.4	56.3	57.2	58.0	58.8	59.6	
2	6.09	8.28	9.80	10.89	11.73	12.43	13.03	13.54	13.99	14.39	14.75	15.08	15.38	15.65	15.91	16.14	16.36	16.57	16.77	
3	4.50	5.88	6.83	7.51	8.04	8.47	8.85	9.18	9.46	9.72	9.95	10.16	10.35	10.52	10.69	10.84	10.98	11.12	11.24	
4	3.93	5.00	5.76	6.31	6.73	7.06	7.35	7.60	7.83	8.03	8.21	8.37	8.52	8.67	8.80	8.92	9.03	9.14	9.24	
5	3.61	4.54	5.18	5.64	5.99	6.28	6.52	6.74	6.93	7.10	7.25	7.39	7.52	7.64	7.75	7.86	7.95	8.04	8.13	
6	3.46	4.34	4.90	5.31	5.63	5.89	6.12	6.32	6.49	6.65	6.79	6.92	7.04	7.14	7.24	7.34	7.43	7.51	7.59	
7	3.34	4.16	4.68	5.06	5.35	5.59	5.80	5.99	6.15	6.29	6.42	6.54	6.65	6.75	6.84	6.93	7.01	7.08	7.16	
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92	6.05	6.18	6.29	6.39	6.48	6.57	6.65	6.73	6.80	6.87	
9	3.20	3.95	4.42	4.76	5.02	5.24	5.43	5.60	5.74	5.87	5.98	6.09	6.19	6.28	6.36	6.44	6.51	6.58	6.65	
10	3.15	3.88	4.33	4.66	4.91	5.12	5.30	5.46	5.60	5.72	5.83	5.93	6.03	6.12	6.20	6.27	6.34	6.41	6.47	
11	3.11	3.82	4.26	4.58	4.82	5.03	5.20	5.35	5.49	5.61	5.71	5.81	5.90	5.98	6.06	6.14	6.20	6.27	6.33	
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.40	5.51	5.61	5.71	5.80	5.88	5.95	6.02	6.09	6.15	6.21	
13	3.06	3.73	4.15	4.46	4.69	4.88	5.05	5.19	5.32	5.43	5.53	5.63	5.71	5.79	5.86	5.93	6.00	6.06	6.11	
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25	5.36	5.46	5.56	5.64	5.72	5.79	5.86	5.92	5.98	6.03	
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20	5.31	5.40	5.49	5.57	5.65	5.72	5.79	5.85	5.91	5.96	
16	3.00	3.65	4.05	4.34	4.56	4.74	4.90	5.03	5.15	5.26	5.35	5.44	5.52	5.59	5.66	5.73	5.79	5.84	5.90	
17	2.98	3.62	4.02	4.31	4.52	4.70	4.86	4.99	5.11	5.21	5.31	5.39	5.47	5.55	5.61	5.68	5.74	5.79	5.84	
18	2.97	3.61	4.00	4.28	4.49	4.67	4.83	4.96	5.07	5.17	5.27	5.35	5.43	5.50	5.57	5.63	5.69	5.74	5.79	
19	2.96	3.59	3.98	4.26	4.47	4.64	4.79	4.92	5.04	5.14	5.23	5.32	5.39	5.46	5.53	5.59	5.65	5.70	5.75	
20	2.95	3.58	3.96	4.24	4.45	4.62	4.77	4.90	5.01	5.11	5.20	5.28	5.36	5.43	5.50	5.56	5.61	5.66	5.71	
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92	5.01	5.10	5.18	5.25	5.32	5.38	5.44	5.50	5.55	5.59	
30	2.89	3.48	3.84	4.11	4.30	4.46	4.60	4.72	4.83	4.92	5.00	5.08	5.15	5.21	5.27	5.33	5.38	5.43	5.48	
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.74	4.82	4.90	4.98	5.05	5.11	5.17	5.22	5.27	5.32	5.36	
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65	4.73	4.81	4.88	4.94	5.00	5.06	5.11	5.15	5.20	5.24	
120	2.80	3.36	3.69	3.92	4.10	4.24	4.36	4.47	4.56	4.64	4.71	4.78	4.84	4.90	4.95	5.00	5.04	5.09	5.13	
∞	2.77	3.32	3.63	3.86	4.03	4.17	4.29	4.39	4.47	4.55	4.62	4.68	4.74	4.80	4.84	4.89	4.93	4.97	5.01	

Dikutip dari: Sudjana (1985).